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NOTES ON GEOGRAPHIC DISTRIBUTION

First distribution record of *Vriesea correia-araujoi* E. Pereira and I. A. Penna (Bromeliaceae: Tillandsioideae) for the Espírito Santo state, southeastern Brazil

Fernanda Campanharo Favoreto [1] and Ana Paula Gelli de Faria [2*]

1 Universidade Federal de Juiz de Fora, Instituto de Ciências Biológicas, Programa de Pós-Graduação em Ecologia, Campus Universitário, Bairro São Pedro. CEP 36036-900. Juiz de Fora, MG, Brazil.
2 Universidade Federal de Juiz de Fora, Instituto de Ciências Biológicas, Departamento de Botânica, Campus Universitário, Bairro São Pedro. CEP 36036-900. Juiz de Fora, MG, Brazil.
* Corresponding author. E-mail: *ana.gelli@ufjf.edu.br*

ABSTRACT: *Vriesea* is the third largest genus in Bromeliaceae and is broadly distributed along of the Brazilian Atlantic Forest. We report the first record of *Vriesea correia-araujoi* for the Espírito Santo state, in Cachoeiro de Itapemirim municipality, southeastern Brazil. So, the geographic distribution of this species is extended to beyond the *Serra do Mar* complex, since it was registered as endemic to the coastal region of Rio de Janeiro state. A map with the distribution of the species is presented, as well as the list of examined material.

Vriesea Lindl. comprises 352 species (Govaerts *et al*. 2012), being the third largest genus in the family Bromeliaceae. The east of Brazil is considered one of its centers of diversity, concentrating approximately 84% of the species (Costa *et al*. 2009), which are widely distributed along of the Atlantic Forest, especially in the more humid formations of this biome.

Vriesea correia-araujoi E. Pereira and I. A. Penna, originally described from the region of Parati-Mirim, southern coast of Rio de Janeiro state (Pereira 1980) and until then restricted to the type locality, comprises a group of species endemic to the Brazilian Atlantic Forest characterized by the utriculiform rosettes, presence of stolons and linear-triangular leaf blades with a maximum of 1.5 cm wide (Gomes-da-Silva and Costa 2011).

The present work reports the first record of *V. correia-araujoi* for the Espírito Santo state, based on field works conducted between the years 2007 and 2012 at the locality of Burarama, Cachoeiro de Itapemirim municipality. Burarama is located at the south portion of the state, at the coordinates 20°41'00" S 41°21'00" W. The region presents an altitudinal gradient ranging from 200-1380 m (IJSN 2010) and according the classification of Köppen (1948), the climate type is Cwa, characterized by hot, humid summers and mild, dry winters. Its vegetation is composed mainly of fragments of lower montane semi-deciduous forest, besides smaller portions of montane dense ombrophile forest (*sensu* Veloso *et al.* 1991). In Burarama, the populations of *V. correia-araujoi* are small and sparse, and the individuals occur in both semi-deciduous and dense ombrophile formations, growing as epiphytes under exposed sun and shade. The specimens were collected in private properties with the permissions of the members of Gava and Permanhane families, besides the Brazilian Forestry Service (IBAMA), and deposited in CESJ herbarium.

Vriesea correia-araujoi is closely related to *V. poenulata* (Baker) E. Morren ex Mez. The great vegetative and reproductive morphological similarity shared between these species makes delimitation difficult, particularly when some diagnostic characters are not mentioned on herbarium labels. The main distinguishing characters between *V. correia-araujoi* and *V. poenulata* are related to the color of flower bracts and petals (Gomes-da-Silva and Costa 2011). In *V. poenulata*, floral bracts are predominantly yellow or yellow with the lower third red in individuals with a mature inflorescence, and the petals are yellow. On the other side, *V. correia-araujoi* has red floral bracts with the upper third white or greenish-white, and the petals are white. Such features are clearly observed in the specimens collected in Burarama (Figure 1).

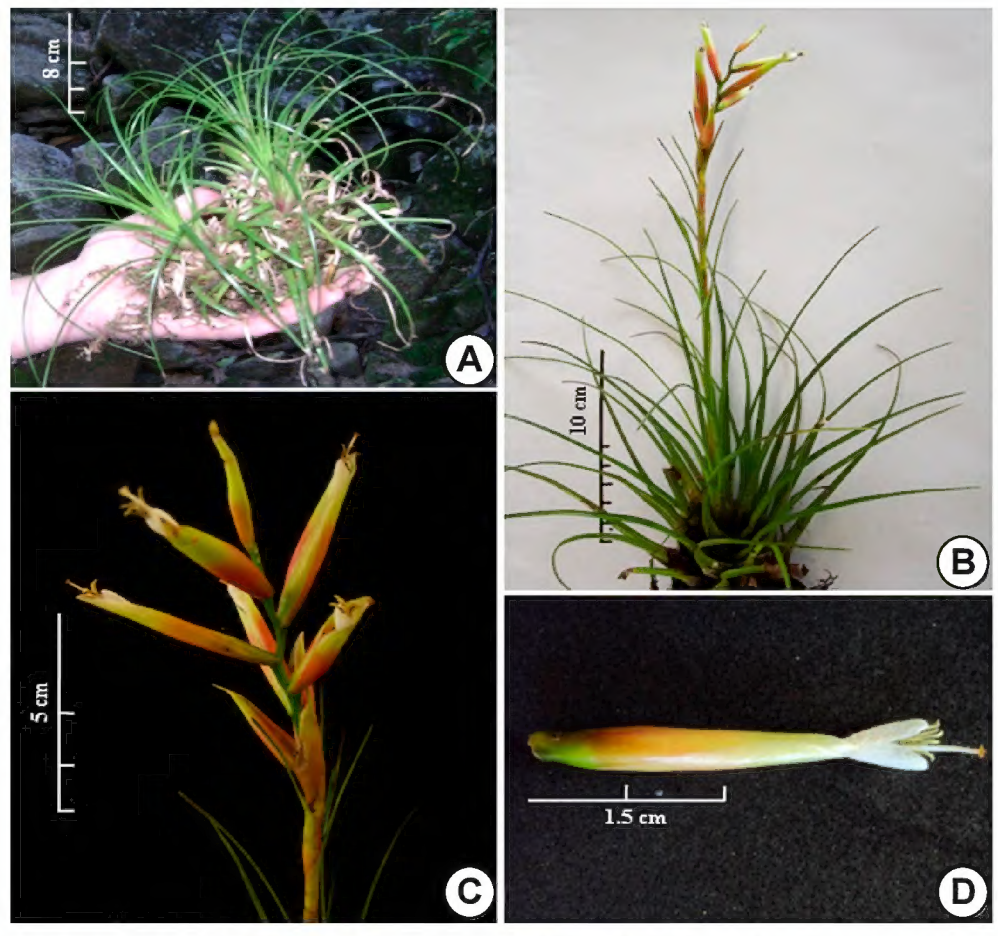

FIGURE 1. A) Specimens of *Vriesea correia-araujoi* in their natural habitat at Burarama locality, Cachoeiro de Itapemirim municipality, Espírito Santo state; B) Fertile individual; C) Detail of the inflorescence; D) Flower. (Photos: F. C. Favoreto).

Vriesea correia-araujoi appears to have a pattern of geographic distribution similar to *V. poenulata*. Besides the occurrence in the coastal region of Rio de Janeiro, the distribution of *V. poenulata* extends from the highland areas of this state to the center-south portion of the Espírito Santo. Additional floristic surveys in inland areas of Rio de Janeiro may indicate the occurrence of *V. correia-araujoi*, and elucidate the disjunct distribution pattern presented by this species.

Although not included in official lists of threatened species, Gomes-da-Silva and Costa (2011) classified *V. correia-araujoi* as Critically Endangered according to the International Union for Conservation of Nature (IUCN) red list criteria and categories (IUCN 2012). By expanding the knowledge about the geographical distribution of *V. correia-araujoi* populations, the present work provides data for further studies to better investigate its conservation *status*. Burarama is among the areas in the Espírito Santo with priorities for conservation (IPEMA 2005). The forest fragmentation for replacement by pastures and croplands, besides the impact caused by the extraction of ornamental rocks play an important role for the environmental degradation in these region, which is worsened by the fact that its flora and fauna do not occur inside any public or private protected area. Thus, the adoption of conservation strategies to protect the only population of *V. correia-araujoi* so far known outside the *Serra do Mar* complex is of fundamental importance. Data from the examined material are shown below, as well as a map with the extended distribution of *V. correia-araujoi* in southeast Brazil is shown in Figure 2. The geographic coordinates of Burarama, in Espírito Santo state, were taken in the field using a Global Position System (GPS) and the additional ones were taken from the Brazilian Institute of Geography and Statistics´ database (http://www.ibge.gov.br).

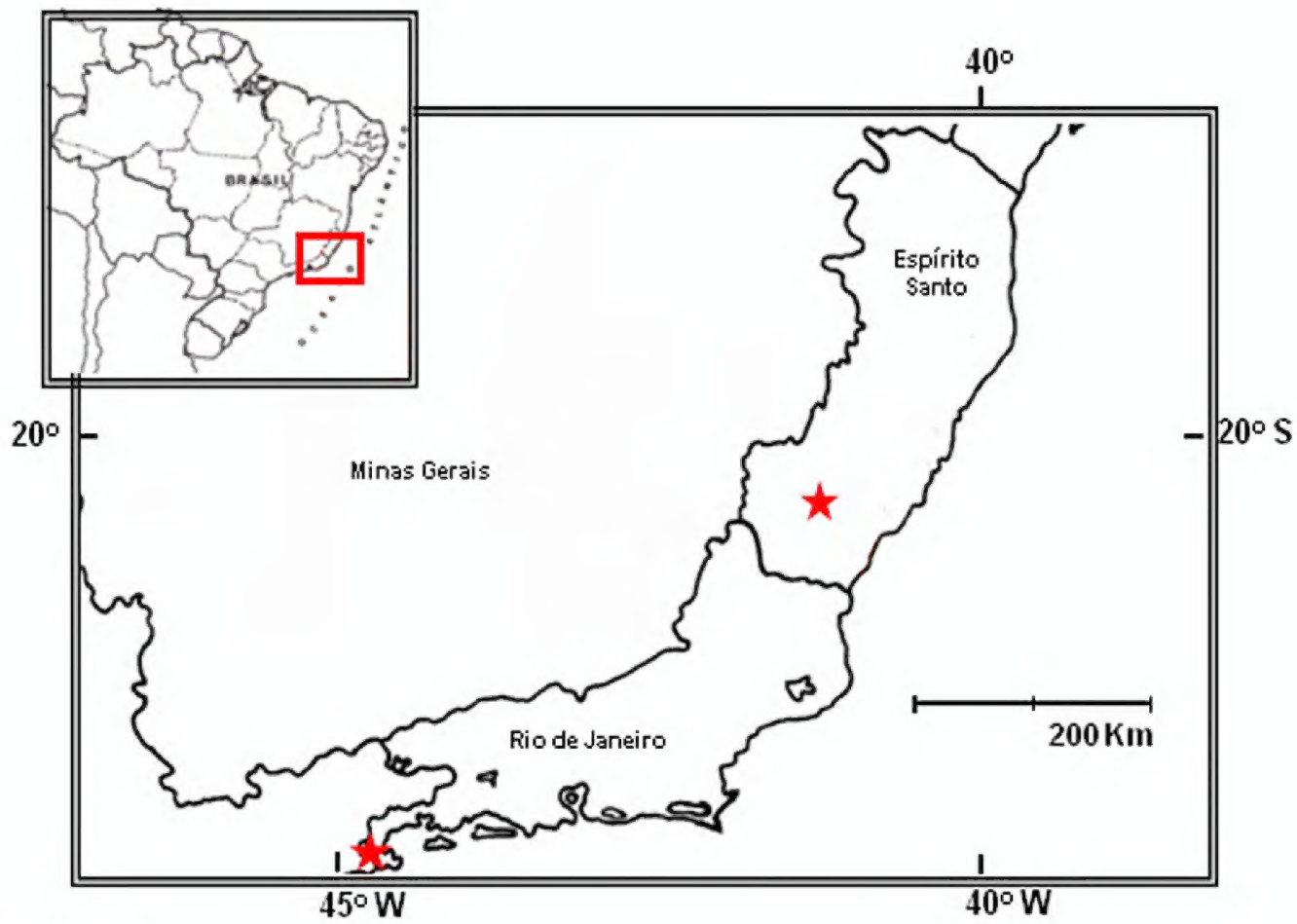

FIGURE 2. Distribution map of *Vriesea correia-araujoi* in southeastern Brazil.

Material examined: BRAZIL. Espírito Santo: Cachoeiro de Itapemirim, Burarama, Mata do Açude, 20°40'24.4" S 41°20'55.7" W, 26-XII-2007, fl., F.C. Favoreto 24 (CESJ), 12-I-2012, fl., F.C. Favoreto 134 (CESJ). Espírito Santo: Cachoeiro de Itapemirim, Burarama, Alto Cantagalo, 20°40'10" S 41°22'49" W, 21-V-2011, fr., F.C. Favoreto 93 (CESJ).

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